ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE

MALDON RURAL SANITARY AUTHORITY

FOR THE YEAR 1893.

MALDON:

RICHARD POOLE, "OTTO" WORKS, 37 HIGH STREET.

MDCCCXCIV.

Digitized by the Internet Archive in 2017 with funding from Wellcome Library



MALDON RURAL SANITARY DISTRICT.

Annual Report

OF THE

MEDICAL OFFICER OF HEALTH,

FOR

1893,

 $\mathbf{B}\mathbf{Y}$

JOHN C. THRESH, D.Sc., M.B., D.P.H.

A INDEX. &

				PAGE
Sanitary Condition of the	he District	• • •	• • •	3
" Improvement Ef	fected	• • •		7
,, Re	equired	• • •	• • •	8
Outbreaks of Infectious	Disease	• • •	• • •	9
Scarlet Fever	• • •	• •		9
Diphtheria	• •	• • •	• • •	11
Typhoid Fever	• • •	• • •		14
Small Pox	• • •	• • •	• • •	15
Cholera	• • •	• • •	• • •	15
Erysipelas	• • •	• • •	• • •	17
Measles	• • •	• • •	• • •	18
Chicken Pox	• • •	• • •	• • •	18
Statistics of Mortality	• • •	• • •	•••	19
Tables ", ",	• • •	• • •		22
Extracts from Census B	Returns	• • •	• •	28
Inspector's Summary				30

MALDON

RURAL SANITARY DISTRICT.

Sub-Registration	Distraction Dist	ricts.			$Area\ in \ Acres.$		Population 891 Census.
Tollesbury	(11	parish	es)	• • •	35,166	• • •	7,453
Bradwell	(5)	,,)	• • •	12,441		2,804
SOUTHMINSTER	(6	,,)	• • •	21,915	• • •	4,742
Maldon	(11	,,)	• • •	26,284	• • •	3,335
					95,806		18,034
					*		

To the Chairman and Members of the Maldon Rural Sanitary
Authority.

GENTLEMEN,

I have the honour to submit to you my Report for the past year containing all the information specified in the Local Government Board's Order of March, 1892.

As the water supplies, sewerage, drainage, and sanitary condition generally were described fully in my report for 1891 and 1892, it is not necessary now to do more than refer to the changes which have occurred during the year. I may however be excused for referring once more to the condition of the houses of the labourers generally throughout the District. Mr. Aubrey Spencer's Report to the Royal Commission on Labour deals with this subject, and I purpose recording his opinions here, merely as confirming those which I have myself expressed from time to time.

Cottage Accommodation.

"The supply of cottages cannot be said to be deficient in point of number as in most villages the population has declined, and there are a number of cottages uninhabited. In Burnham and Tollesbury, where the population has increased, there have been a number of new houses built. At the same time there is undoubtedly a great deficiency in the number of really habitable cottages suitable to the decent comfort of labouring men and their families, and good cottages are it seems to me in this Union required more than anything else for the well-being of agricultural labourers."

"In many of the villages there is no aggregation of cottages which can be dignified with the name of "village"; in other parishes there are two or more hamlets, while in a small proportion there are compact and populous villages. Most farms have one or two farm cottages belonging to them, inhabited usually by horsemen and stockmen, but in the majority of cases the labourers live in cottages hired from independent owners. These are not always conveniently situated, and both at Tolleshunt D'Arcy and Purleigh, complaints were made that men had to walk some way to their work."

"The state of repair of many cottages in the Union leaves very much to The great majority of cottages that I saw were either constructed of weather-boarding or of lath and plaster, and many of these appeared to have been neglected for some time and allowed to fall into a state of decay. It is not at all uncommon to find the roof, which is frequently of thatch, more or less ruinous and holes in the floors of the upstair rooms and in the walls throughout the This, of course, is not everywhere the case, and in some villages very fair cottage accommodation will be found, but it is rather the exception than otherwise (see particulars in Appendix B).* Brick and tile cottages are to be seen here and there, but wooden or lath and plaster ones are far more common. unfortunately usually without water-spouting and gutters, and the floors of the ground-floor rooms have not been laid in such a way as to protect against damp. The consequence is that, situated as they frequently are on a clay soil, in damp weather they become saturated with moisture."

^{*}In Mr. Spencer's original Report.

"The common type of cottage has one fair sized living room downstairs and another small room, generally used as a pantry or back kitchen, adjoining. Upstairs there is generally one fair sized bedroom and one smaller one, both of which are frequently built in the roof. Into the smaller of these the staircase from below generally opens. There is not any provision expressly made for ventilation, and there are usually no fireplaces in the bedrooms. This is, however, of less importance, as the rickety nature of the building generally secures the ingress and egress of air. Many villages contain some one-storied cottages, and cottages with only one bedroom are by no means uncommon."

"In some cases lodgers are taken in, but on the whole I did not think the cottages I saw were overcrowded, though bedroom accommodation is often rather scanty."

"A lean-to shed, used as a fuel house, is a common addition, but the out-house accommodation is not so good as in other districts I have visited."

"I visited a number of cottages in Maldon, Woodham Mortimer, Cold Norton, Goldhanger, Tolleshunt D'Arcy, Latchingdon, Steeple, Purleigh, and other places. In some cases my visits were in company with Dr. Thresh, in other cases by myself. Particulars of some of these cottages will be found in Appendix B, part 1. In part 2 of the same Appendix are general remarks on the cottage accommodation, water supply, &c., in various villages. In Appendix C, I have given extracts from Dr. Thresh's Report on the Housing of the Working Classes in the Maldon and Chelmsford Unions which deals very fully and thoroughly with the state of cottage accommodation in those districts and with which my own personal observations lead me to entirely concur."

"The Bye-laws of the Rural Sanitary Authority now in force forbid the building of any but stone and brick cottages, and this body appeared to me, with the able assistance of Dr. Thresh, to be doing everything in their power to improve the present state of things, short of themselves providing improved cottage accommodation under the powers of the Housing of the Working Classes Act, which they appear to be reluctant to take advantage of. About 8 or 9 houses in the district have been closed at their instance, but although, undoubtedly many more cottages should be dealt with in this way, there is a great difficulty in so doing, for if the present occupants were turned out they would have no place to go to."

"The water supply in many of the villages of the Union is seriously defective, owing to the character of the soil. This is especially the case with the villages situate on the London clay, as there water cannot be obtained except by boring through it to a great depth, and in some instances the water obtained is unusable for drinking, on account of its containing a considerable amount of magnesium salts. Drinking water in such cases is usually obtained from ponds, which are often polluted, or by collecting the rain which falls upon the roofs. In the case of some cottages I saw in Heybridge, (see Appendix B) the water supply was from a muddy ditch. In other cottages in Tolleshunt D'Arcy the supply was from a horribly dirty well, full of frogs and newts. In Burnham there is a public water supply, with mains connected with the houses."

"The cesspool system obtains in most of the villages, but Maldon and Burnham are sewered. In Tollesbury the pail system has been adopted, and a public scavenger appointed to empty the pails periodically. In some cases there is drainage of groups of cottages into ditches, but in many instances there is no drainage whatever, and the slops, &c. are disposed of upon the garden ground. A common plan is for the cottager to dig a deep hole, called a "bumby," conveniently near the cottage, into which all the house refuse and slops are thrown. Many houses have not separate privies, and the privies are frequently situated so near to the houses that when the wind is in certain directions the efflurium pervades the kitchen, or, it may be, the whole house."

"The majority of the cottages are owned by small independent owners, and some of the worst in the district are copyhold property. The extreme poverty of the owners is frequently the cause of the dilapidation of the cottages." "In other cases the owners are non-resident in the district, and probably have never seen their property, which is left to the mercy of agents, whose interest it is to remit the rents with as small deductions as possible for repairs. The cottages situated on and let with farms are usually in comparatively good condition. It is very much to be wished that new and improved cottages could be supplied, but except in such places as Tollesbury and Burnham, where there is a population not mainly dependent on agriculture, and who can pay higher rents, there is little inducement to private persons to build cottages. Cottages are said to cost from £250 to £270 per pair to build."

Certain interesting information from the recent Census Returns are included in the Tables in the Appendix.

Sanitary Improvements effected during the Year.

Southminster Water Supply.—These works were commenced on July 16th, and are expected to be completed in a few weeks. They comprise an underground accumulating reservoir to hold 12,000 gals., a brick tower 70 feet in height, wrought-iron cylindrical tank to hold 15,000 gallons, steam engine and pumps with 6-H.P. boiler, 4-in. suction and rising mains, also 4-in., 3-in., and 2-in. distributing mains into the village. The spring at Asheldham from which the supply of water is derived yields over 30,000 gallons per day, or 100 gallons per inhabited house, supposing all are supplied from the mains. The whole has been carried out from the plans of Mr. Alan Stewart, C.E., the Surveyor to the Authority.

The scheme for supplying Purleigh and the adjoining parishes with water from Danbury (in the Chelmsford Rural Sanitary District) has been abandoned, although the loan was duly sanctioned by the Local Government Board after a public enquiry. This is one of the few schemes which practically met with no opposition, and it is with considerable regret that I have to chronicle this unfortunate termination.

THE SEWERAGE OF TOLLESHUNT D'ARCY.—This is now being carried out, at a cost of about £800. The accepted tender for the sewers was £623, and the cost of the land about £125. The Local Government Board had also sanctioned a loan for a public water supply, but it has been decided not to carry this out at present, but to provide two or three public pumps in situations convenient for the use of the inhabitants, and for flushing purposes.

At Tollesbury the sewers have been extended along Brewery Road, along which many houses have recently been erected.

At Southminster the sewerage system, if such it can be called, has been extended, and the old open ditch filled up.

Our Building Bye-laws are proving very useful, although they are not uniformly complied with. I had occasion during the year to report that certain cottages had been erected in Burnham with internal water-closets in which there were no windows, and which were only ventilated by perforated bricks. I regret that the Authority did not insist upon these being altered, and made so as to conform to the Bye-laws.

Numerous minor sanitary improvements are chronicled in the Inspector's Summary of Work Done.

Four prosecutions have been undertaken during the year. In one case under the H.W.C. Act the summons was dismissed, as it was held not to have been properly served. In another an order to close three cottages was obtained. Under the Public Health (Water) Act, 1878, the owner of a cottage was fined £2 and costs for allowing a new house to be occupied without having previously obtained a certificate. In an action to abate overcrowding an order was made to abate within a month. This was complied with.

Further Sanitary Requirements.

Although the scheme to supply Purleigh, Woodham Mortimer, Hazeleigh, Cold Norton, and Stow Maries with water from Danbury has been abandoned, an attempt should be made to obtain water for them from some other source. There are several good springs at Woodham Mortimer, but unfortunately they are too low to enable the district to be supplied directly by gravitation. Pumping would have to be resorted to. The matter is receiving the attention of the Surveyor and myself, and we hope that a feasible scheme may yet be elaborated.

The rising village of Tollesbury still remains dependent upon its numerous shallow wells, sunk in a filthy subsoil, for its water supply.

A proposal was made during the year to obtain an Infectious Diseases Hospital near Maldon for the joint use of the Urban, Rural, and Port Sanitary Authorities. The informal conferences which were held led to no useful result, and all three Authorities remain without any Isolation Hospital. As the town of Burnham is developing and becoming more and more the resort of yachtsmen and excursionists, a building ought to be provided near here which would serve not only for Burnham but for all the villages in the Dengie Hundred. A cottage for the same purpose near Tollesbury is also desirable. For Heybridge and the villages near Maldon the best and most economical plan would be to provide a hospital for the Urban and this portion of the Rural District.

The further requirements of the district are sufficiently indicated in the introductory quotation from Mr. Aubrey Spencer's Report, and their repetition is unnecessary.

Outbreaks of Infectious Disease.

SCARLET FEVER AT TOLLESBURY. In the Autumn of 1892 an extensive epidemic of Measles prevailed in this parish. When the outbreak appeared to be at an end, Scarlet Fever mysteriously made its appearance. It did not come to my knowledge until January 9th, and the earliest case which I could trace had its onset about three weeks earlier. It occurred in a family of six children, none of whom had previously had Scarlet Fever, but all of whom had had Measles during the preceding three months. The boy first attacked was taken ill during the night, vomited and was 'light-headed.'

Next day his throat was sore and glands of neck swollen, and on the second day a rash came out which the mother says was not like that of Measles, from which he had only just recovered. The body and limbs were scarlet all over. Another child was attacked a day or two later; both recovered before the schools re-opened after the Christmas holidays, and though one of them was peeling, both returned to school. The result naturally was an extension of the Other families had become infected during Christmas week from visiting the infected house. How the first patient became infected I was unable to discover, but every subsequent case was distinctly traceable directly or indirectly to it. By insisting upon isolation of the patients, and excluding all members of infected families from the school, the outbreak was speedily About twenty-three cases occurred during January and February, and only one or two in March. As a large number of the people here make men's clothing in their cottages for Colchester firms, I obtained from the latter lists of their out-workers in my district, and in this way I was able to prevent either fresh material being delivered or possibly infected clothing being removed.

From Tollesbury the disease spread to Tolleshunt Knights and Tolleshunt D'Arcy. Only one or two houses were infected in the latter village, but amongst the scattered cottages on Tiptree Heath the disease lingered until the summer was over. The cases were all of a very mild type and this probably accounted for the difficulty in eradicating the disease.

About the same time (winter and spring) many cases of Scarlet Fever were notified from different parts of the district and having apparently no connection with each other or with any known pre-existing cases. On the other hand they were generally associated with cases of Influenza either in the same house or same group of houses. The rash was very evanescent and visibly only on the chest. I unfortunately never saw one in this stage. As the children did not desquamate afterwards it is possible that the disease was more nearly allied to Influenza than Scarlet Fever. Out of the 75 cases of Scarlet Fever notified, not a single death occurred.

DIPHTHERIA.—A number of cases occurred in the Spring in Heybridge, several houses becoming infected. In some instances nearly all the members of the family were attacked, in others only one inmate of a house suffered. In the majority of cases the houses invaded had had cases therein during the previous twelve months, and two or three of the patients had previously had the disease, one girl was notified for the fourth time in three years.

In September a few other cases occurred during an epidemic of Influenza. During the year 26 cases were notified from Heybridge against 90 in 1892. None of the cases this year proved fatal and only one in 1892. At the end of June a fatal case of Croup occurred, the patient being an infant of two years, but it was not regarded as Diphtheritic. A mortality of one out of 116 cases seems to indicate that the form of Diphtheria prevalent here is very different from that which is notified throughout the county where the mortality averages 20 per cent. of the cases. Whatever its nature, it is gratifying to note that the cases are diminishing in number and possibly this is due to the fact that great improvements have been effected in the sanitary arrangements generally throughout the village.

At TILLINGHAM a case (a married woman) was notified towards the end of June. Upon enquiry I found a child had been visiting its grandmother who lived in a house opposite the one reported as infected. This child was taken ill whilst staying here but returned Two days after reaching home it died from home on the 24th. The woman who contracted Diphtheria was on very Diphtheria. friendly terms with the child and its grand-parents and possibly contracted the disease from the child. It was impossible to trace The child was taken ill any connection with a pre-existing case. soon after going for a walk on the marshes where some offensive manure had been spread. Close to the two houses also a drain had been blocked and had given rise to a nuisance. The latter may have caused both cases. No extension took place and no other case occurred in the parish, so that if the disease arose here it was due to some such local cause.

At Burnham a child aged 3 months died in May from Diphtheritic Croup. It was taken ill suddenly in the night and died the following day. The house was an isolated one, over a mile from the village. No source of infection could be discovered and no one near, either before or after, was affected. In October a case of Diphtheria, which proved rapidly fatal, was notified from the village, and a somewhat serious epidemic followed.

The following Report on the outbreak was presented Dec. 12th.

For nearly three years the village has been absolutely free from Diphtheria, but in October last a case occurred in the High Street. It was notified on the 7th and the child died the following day. I could not trace the origin of this case and the sanitary arrangements at the house were above the average in The closet pan was hand flushed, the w.c. placed in a recess in an outhouse where adequate ventilation is almost impossible. As other children in the house and the parents remained guite well, I allowed the former to return to school on the 17th or 18th. On the 16th I visited the schools and also made enquiries in numerous places but did not hear of a single case of sore-throat or of suspicious illness. It has since however transpired that a girl aged 14, a member of the family above referred to had a slight sore-throat some days after she returned to school. It was so slight however that little notice was taken of it and the date is not remembered, yet very probably it was the cause of the outbreak.

The second case notified was on November 11th, the third on the 17th. The third case was next door to the first. Between the 11th and 17th, I found that some form of sore-throat had spread rapidly amongst the children attending school and was seriously affecting the attendance. At the end of the week about 30 infants were absent, and about the same number from the mixed school. I visited nearly all the absentees and discovered that three had well marked Diphtheria, whilst many others had an unhealthy condition of throat, enlarged glands, etc. The attack in most instances had been attended with headache, shivering, and a feeling of nausea or even actual vomiting. This is a common mode of onset and unfor-

tunately often causes the parents to think the child is merely suffering from a slight bilious attack. In some families every member had been attacked, in others only one or two. I believe in every instance the first person affected in any household during that week was a child attending the school. Several families had been attended by medical men, who considered the cases as "Septic Tonsillitis," only in the notified cases had any membrane been observed. Whether such cases as these are really Diphtheritic or not is a question upon which the profession are not agreed. is one however of very great importance and will have to be worked out in the Bactereological Laboratory. Fortunately the County Council has just established such a Laboratory in the County Town and with the assistance of the lecturer on Biology (Mr. Howston), I hope that work may be done there tending to throw some light on the subject. In any case it seemed to me desirable that the children of the town should not be allowed to congregate together again for a time, and I at once advised the closing of both the Day and Sunday Schools. I called upon all the Sunday School Superintendents and one of the Day School Managers and all agreed to close for at least two weeks. I also caused a number of hand-bills to be distributed, describing the precautions to be taken to prevent the spread of the disease. I wrote Mr. Stewart requesting him to give the sanitary condition of the village his special attention and to see that all closets, drains, and sewers were in a satisfactory condition.

Twelve cases have occurred in eight houses, and four deaths. It will be noted that after the closing of the Schools (November 12th), only two other houses became infected. On December 2nd I again went round the town and did not find a single unnotified case, and there were very few cases of sore-throat. I therefore allowed the Schools to re-open on the 4th instant, simply excluding all the children from several families. I am glad to say not one case has been notified since. Great praise is due to Mr. Eggett and his staff since he has continued to make enquiries about absentees and he promptly notified me of any about which there was the least suspicion. I hope therefore that the outbreak is at an end.

JOHN C. THRESH.

Since presenting this Report, four other slight cases have been reported.

Typhoid Fever.—A localised outbreak of this disease occurred in an isolated group of cottages at Woodham Walter in January. The cottages were a little distance from and at a lower level than the farm-house near which a spring arises, which supplies all the inhabitants with water. Near the spring was a privy with a defective cesspit and some weeks prior to the outbreak the farmer had had some kind of febrile affection associated for a time with diarrhœa. He only kept his bed for a short time. During heavy rains filth from this cesspit was undoubtedly washed into the rivulet formed by the spring and which supplied the cottages. Fortunately none of the four cases notified proved fatal. It is scarcely necessary to state that the offending privy has been removed, but the stream is still liable to pollution where it passes under the highroad.

At HEYBRIDGE a child who had had a ducking in the canal (January 20th) was notified on Feb. 7th as suffering from Typhoid.

At Althorne a labourer was notified to be suffering from Typhoid Fever in September. This man and two others had during the previous month been engaged in spreading London manure. Their evidence with reference to the effect produced upon them is interesting. All stated that the effluvium was so offensive, penetrating and persistent that upon reaching home in the evening they had to divest themselves of their working clothes and hang them in the yard.

'A' stated that the work "turned him up and made him vomit."

'B' said that it made him so ill that he had to give up work for several days. He had sore throat, pain in the head, and diarrhea. He did not vomit. His tongue was very foul and finally 'the skin came off the tongue in large pieces.'

'C' suffered from sore-throat and nausea and felt so ill that he had to give up work. A fortnight later he had to call in a medical man who after attending him a few days certified that he was suffering from Typhoid Fever. A week later the case terminated fatally.

These cases afford pretty conclusive evidence of the disease-producing powers of the putrid manure which London distributes in

our agricultural districts. The suggested Bye-Laws (vide Dr. Parson's specials reports to the Local Government Board) for regulating the transit and storage of such manure will not affect the evil results which follow its spreading upon the land nor prevent those who handle it being poisoned.

Two or three cases of Typhoid Fever which have been notified during the year commenced with Influenza, the patients afterwards developing Typhoid symptoms.

SMALL-Pox.—A case of Small-Pox occurred in a van on Howe Green early in October. The family had been hop picking in Kent and had travelled by easy stages staying in Essex at Tilbury and Woodham Ferris. How the lad became infected I was unable to ascertain. The father, mother, and five children lived in the small caravan, but most of the children slept in a small tent. As soon as the case was notified the Inspector had the hospital tent erected, the patient removed, and placed in charge of a nurse. The van was disinfected and the bedding burnt. At the end of a month the patient was convalescent and removed back to the van. There was no extension of the disease.

Cholera.—At the end of September a woman aged 62 living at Althorne was suddenly attacked with vomiting, diarrhoea, tenesmus, cramps in the legs, faintness, etc. The diarrhoea lasted 24 hours and recovery was rapid. The case was notified simply as 'Cholera,' and was a typical case of so called English Cholera.

A series of curious cases occurred in August in the parish of Woodham Mortimer. On the 24th of that month I received a telegram from Dr. Facey, asking me to meet him at a house there. Upon my arrival I found him engaged making a post-mortem on the body of a girl aged $5\frac{1}{2}$ years, who had died on the 22nd, and whose brother had since been attacked with symptoms similar to those exhibited by the deceased. It appeared that on the night of the 20th, all the members of the family had retired to bed apparently in the best of health. At 4 a.m., Constance (the deceased) aroused her mother and complained of pains in her bowels. She passed one or two motions but at 9 a.m. felt sufficiently well to get up. Towards noon she appeared very drowsy, laid down on the

sofa, and only spoke once afterwards. As she appeared unconscious Dr. Facey was sent for and arrived about 10 p.m. Soon after she had a series of convulsions and died at 1-30 a.m. the same night. During her 22 hours' illness she vomited three times and passed 6 stools of an offensive character. The one examined by me was semi-fluid, yellowish-brown, and contained a large quantity of partially digested plum and apple, chiefly recognizable by the Dr. Facey, on his arrival, found the extremities cold, the pupils contracted to a pin's point, mouth firmly closed. All muscles flaccid except during the convulsions, which were clonic, at first affecting the right side only, then both sides. The legs however only twitched. Temp. 101.6. Motions passed into sheet. Death was certified as being due to Diarrhea, Coma, Convulsions. the 23rd, William aged 4, fell down suddenly at 3 p.m. without any previous complaint of feeling ill, and when picked up simply said that he felt sleepy. He shortly afterwards complained of pains in his bowels and seemed feverish. Dr. Facey being called in and finding the child lapsing into a comatose condition gave a large dose of calomel. The temp, was then 104.6. At 4 a.m. the bowels acted The child dozed constantly, skin was pale and moist, but the temp. rapidly fell to 99.4. When this child was recovering, Francis, aged 2, complained of pain in his abdomen and vomited. He also for a time seemed drowsy, but in a few hours seemed to During the night he had a relapse, became feverish and His mother could not rouse him. He vomited and had delirious. During the same night, the baby, aged 8 months, was attacked with diarrhea, passing six motions. When not dozing, he screamed with pain. Both recovered rapidly. None of the stools passed had any resemblance to rice-water.

The abdominal organs of the child who had the fatal attack presented no very abnormal appearance. The mucus membrane of the whole alimentary canal seemed healthy save at the cardiac end of the stomach, where there was a little congestion (P. M.?) and a few minute extravasations. A little brownish-yellow semi-fluid matter with a stercoraceous odour was found in the stomach. This and a portion of each organ were sent to a London Hospital for examination, but with negative results.

A series of very similar cases had occurred, I found, in the adjoining cottage a fortnight previously, but the prompt administration of castor oil had in each case been so beneficial that no medical man was called in. In several other houses around there had been cases of diarrhæa with sudden onset, and in the harvest field several labourers had been so attacked.

The child who died, it was thought, might have eaten certain berries from a plant growing against the side of the house, but this was a rosaceous plant (species of Cotoneaster), and almost certainly non-poisonous. The baby however, who also was attacked, had certainly had nothing but the mother's breast, and the mother had not been affected. The water supply was subject to pollution by cattle, but in the house which suffered most the mother asserted that every drop of water was boiled before use. The outbreak could not be traced to the use of any article of food or drink. The symptoms did not point to cerebro-spinal meningitis nor the p. m. to any irritant poison The most probable diagnosis seemed that of "English Cholera."

ERYSIPELAS.—During the epidemic of Diphtheria and Septic Tonsillitis in Burnham several cases of Erysipelas occurred. An organism, either identical with or closely allied to that causing Erysipelas, is frequently found in Diphtherous membrane, and during the past year I have sometimes met with Erysipelas and Diphtheria in close association. The first case, Mrs. C., had not previously had Erysipelas, but a sister had had four attacks. days later (October 24) a daughter living near, and who had frequently visited her mother, was attacked. On October 28th a cousin of this woman was infected. She was a delicate woman, and had not visited either of the other patients, but her sister who lived next door was constantly in and out of all these houses. On November 9th a cousin of the first patient was notified, and she had helped to nurse the second patient. We thus had four related people affected one after the other, not one of whom had had Erysipelas before, and so far as I know they were the only cases which occurred there during the whole year, with the exception of one doubtful case notified about the same time. All the above four were well marked cases of a severe type.

AGE AND SEX DISTRIBUTION OF CASES OF DISEASE NOTIFIED.

Diphtheria :		0-1 year.	1-5	5 15	15—25	25 - 45	Over 45	Total
7.77		1 (Croup)	8	9 (1 Croup)	4	3	7	26
Females		$\begin{bmatrix} 1 & (010 & \alpha_{\rm P}) \\ 0 & \end{bmatrix}$	3	16	7	4	ī	31
1 01110100		Ŭ				1	-	
SCARLET FEVER	R.:							
Malas		0	12	19	2	0	0	33
Females		0	6	32	0	4	0	42
Typhoid Fever	R:							
Males		0	1	3	0	2	3	9 5
Females		0	0	1	1	1	2	5
ERYSIPELAS:								
Males		0	0	0	0	0	4	4
Females		0	0	0	0	4	6	10

Measles.—An epidemic occurred in NorthFambridge in January and necessitated the closing of the schools for a short time. An epidemic also occurred in Tiptree during the same month, and as both Diphtheria and Scarlet Fever were prevalent in the same neighbourhood the schools had to be closed.

In March, Measles became prevalent in Purleigh, and the School had to be closed. In June a number of cases occurred in Burnham, but probably, owing to the fact that a wide-spread epidemic had prevailed there in 1892, the school attendance was not seriously affected. Towards the end of November, Measles was introduced into Mundon by a child from London. Soon after she commenced to attend school the children went down in rapid succession, and the school had to be closed.

CHICKEN Pox.—Several localized outbreaks have occurred, notably at Mundon and Woodham Mortimer, but the effect upon school attendance has never been marked. I was sent for to see one case in which the eruption simulated that of Small Pox, many

of the pustules being umbilicated. During the year cases of Scarlet Fever, German Measles, Chicken Pox, and a mild form of Ophthalmia having occurred amongst the children at Woodham Mortimer School, I recommended that the interior of the school should be lime or colour-washed, or the brickwork cleansed with some disinfecting solution, but the advice has not yet been acted upon.

Statistics of Mortality, &c.

BIRTHS.—The number of Births recorded during the year (500) is in excess of the number for the previous year, but much below that for 1890 or 1891. It gives a birth-rate of 27.7 per 1000 population, the mean for the ten years, 1881-90, being 30-6.

DEATHS.—The total number of deaths registered in the district is 238, but 28 deaths occurred in the Union Workhouse of paupers belonging to the district. This brings up the total to 266, which is 41 less than in the previous year, and much lower than the average for the preceding twelve years. The death-rate calculated per 1000 population is 14·7 as contrasted with 16·9, 16·3, and 16·9 in the years 1892, 1891, and 1890 respectively.

ZYMOTIC DEATH-RATE.—From the seven principal Zymotic diseases 32 deaths have occurred. Measles (8) and Diarrhœa (9) were responsible for more than half these cases. Diphtheria and Croup caused 7 deaths, Fevers 5, Erysipelas 2, and Whooping Cough 1. The excessive number of deaths from Diarrhœa at a period when a Cholera invasion seemed imminent would seem to indicate that favourable conditions existed for the spread of such an epidemic. Some of the cases which occurred have already been referred to. Three of these deaths, however, were of young children, and the intestinal irritation was probably associated with "teething." Four were aged people, and the Diarrhœa was partly due to senile decay.

The Zymotic Death-rate 1.7 though lower than in the previous year, was about the average for the preceding 12 years.

Infantile Mortality.—Forty-five children died under one year of age, and as 500 children were born during the year, this gives a death-rate of 90 per 1000. This also is lower than has been recorded for the last few years.

Mortality in various Districts.—Of the four sub-registration districts, Maldon has had by far the heaviest mortality, the death-rate in the second quarter of the year reaching 31·2 per 1000. (Vide Table III.) In part this was due to an epidemic of Measles, which caused several deaths. In Woodham Mortimer, Woodham Walter, Hazeleigh, Purleigh, Cold Norton, and Stow the mortality has been much in excess of previous years, and this is partly accidental and partly due to epidemic disease amongst the children.

Several questions having been asked about the death-rate in Heybridge, the following figures abstracted for the past four years may prove interesting to those who desired information. The deaths include, those of Heybridge paupers who died in the Union Workhouse, and will not therefore correspond with the Church register.

		Deaths attr	ributed to		
		Piphtheria		Deaths from	
	a	nd Croup.	Old Age.	all causes.	Death-rate.
1889	• • •	0	5	24	14.8
1890	•••	1	7	34	21.0
1891		3	7	34	21.0
1892		2	1	23	14-2
1893	• • •	1	2	15	$9 \cdot 2$

The excessive number of deaths from old age partly explains the high mortality of 1890 and 1891. To compensate for this an exceptionally small number of persons have died from old age during the last two years.

DEATHS FROM VARIOUS CAUSES.—In the following Table the deaths from diseases affecting special organs, etc., for the years 1889, 1890, 1891, 1892, and 1893 are compared.

Cancer	1889. 12	1890. 9	1891. 15	1892. 11	1893. 8
Phthisis	23	27	23	21	18
Other Tubercular Diseases	15	6	5	11	15
Diseases of Respiratory System	26	40	33	23	21
,, Circulatory ,,	33	26	32	21	21
", Nervous* ",	7(?)	34	23	28	20
" Digestive "	9	8	9	11	9
" Urinary "	5	11	8	8	7
Premature Birth	10	7	11	8	8
Convulsions and Teething	11	8	14	12	10
Debility and Inanition	15	13	12	13	. 12
Old Age	35	51	54	48	54
Violence	11	5	9	5	5

^{*} Since 1889, deaths certified as due to Apoplexy only, have been recorded under diseases of the Nervous System,

JOHN C. THRESH, D.Sc., M.B., D.P.H., &c.,

Medical Officer of Health.

MALDON RURAL SANITARY DISTRICT.

TABLE I.

Birth and Death-Rates and Infantile Mortality during 1893, compared with previous years.

	Р	er 1000 Populati	ion.	Infantile Mortality.
PERIOD.	Birth-rate.	Death-rate. All Causes.	Death-rate. Seven Zymotic Diseases	Deaths of Infants under 1 year, per 1000 Births.
1893	27.7	14.75	1.7	90
1892	26.8	16.9	2.3	118
1891	29.7	16.3	.83	95
1890	29.8	16.9	1.99	111
1881-90	30. 6	15.1	1.53	90

TABLE II.
SUB-REGISTRATION DISTRICTS.

DOD-INDIDITION DISTRICTS.													
		1893.		1881-92.									
DISTRICT.	Death Rate.	Zymotic Death Rate.	Infantile Mortality.	Death Rate.	Zymotic Death Rate.	Infantile Mortality.							
Southminster Bradwell Maldon Tollesbury	14.8 12.8 20.7 12.1	2.3 .7 2.7 1.1	$\begin{bmatrix} 126 \\ 100 \\ 88 \\ 73 \end{bmatrix}$	15.9 14.0 15.9 14.8	1.9 1.1 .96 1.5	95 75 94 91							

TABLE III.

Quarterly Returns of Mortality in Sub-Registration Districts.

Deaths per 1000 Persons living per annum.

Beautie pe			0 11411120 1		
		First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter,
Southminster Bradwell Maldon Tollesbury		12.6 15.7 20.4 14.5	12.6 9.9 31.2 7.5	14.3 12.8 22.8 14.0	19.4 12.8 8.4 12.7
Maldon R.S.D.	1893	15.8	15.3	16.0	13.3
Maidon It.S.D.	1892	29.2	15.7	13.1	12.4

TABLE IV.

TABLE IV.

TABLE IV.

TABLE IV.

TABLE IV.

and Localities.

		•			•	1		23										
	AGE	16	LatoT	20	42	6	27	22	59	17	42	89	170		1	28		
	YEARS OF AGE	15		13	29	6	15	15	31		18	48	93		1	22		•
	ಗರ	14	səirulaI		. 2		:		; : 01	1	-	1	5		1	:		•
	UNDER	13	Heart Discase		1		9		00		9		21			. 61		
	CHILDREN	12	Bronchitis, Pneumonia & Pleurisy	1	ආ		: : :	31	. ro	co	. 4	9	15			. 23		•
	оғ Си	11	Phthisis		. 6		. –		· თ	1	7		81			. 67		•
	DEATHS	10	Eheumatic Fever		:		:			1	:	1	:	ality		:		:
	ING DE	0	Diarrhea bna Dysentery	61			67		П		භ	က	9	of mortality	1			* * * * * * * * * * * * * * * * * * *
	DISTINGUISHING	00	T-2200									П	: }	scords	1			•
	•	7	Measles				1	61		63	භ	<u>ت</u>		of the above records	1	:		•
	CAUSES,	9	Erysipelas				1		67				23	of the a		:		
	BJOINED C	5	Puer-		П				П		1		73	judging o	1	:		
es.	subjoi	4	Fever Foon- Signal beautit		1							H						•
and Localities.	Щ.	က	Enteric Typhoid		23			i	1		1	1	හ	accour				
a 170	Mortality	23	Membra- mousCroup				1			-	1	2	1	en into				•
GE I	Mor		sirəfithqiQ	63	23	1	1	1				က	67	be take	1	1		•
				Under 5	5 upwards	Under 5	5 upwards	Under 5	5 upwards	Under 5	upwards	Under 5	5 upwards	The subjoined numbers have also to be taken into account in	Under 5	5 upwards	Under 5	5 unwards
			65 and up- wards.	1		<u> </u>		} :		1 :	rO	1 38		ers ha	1 1	ιQ		
	ES,		and see we	01			[S.	i	٠ 		57		l numb				1
	LL CAUSES, AGES		and a nnder ur 25	c.		-		G		٠		13		bjoined	н			1
			$\begin{bmatrix} 5 \\ \text{and} \\ \text{under} \end{bmatrix}$	co	,	-	- <u> </u>	10	- -			15		The su				1
	<u>ක</u> ්		and as	rc.				٠				23						
	MORTALITY AT SU		$\begin{bmatrix} \text{Under} & \text{a} \\ 1 & \text{ur} \end{bmatrix}$	ro		9	,	91		α	0	45						
	M	_	At all ages ye	69	<u> </u>	98		5		0,0		238						
					: 1	କୀ				,	°					ii .	th- ing	ng
			Sub-registration District	SOTTHEMINGTER		BRADWELL		TOLLESBURY		MALDON		TOTAL		7	Deaths occurring outside the district among persons be-	longing thereto, Union Workhouse.	Deaths occ'ring within the district among	rsons not belong
			S	108		BRA		TOT		MA					outs amo	long	Deat	in th

5 upwards

TABLE of POPULATION, BIRTHS, and of NEW CASES of INFECTIOUS SICKNESS coming to the knowledge of the Medical Officer of Health, during the year 1893, in the Rural Sanitary District of Maldon.

		1		1			
dical		Totals,	8	6	3 2 2	19	30
the Me	.8	Erysipelas			10	00	14
dge of 1		Cholera.					
knowle		Puerperal,					9
to the]		Relapsing.				1	
coming Healtl	FEVERS.	bənnitnoO					
New Cases of Sickness in each Locality coming to the knowledge of the Medical Officer of Health.		Enteric or Typhoid.	1 4		5	C STANBARTO	13
each Lo		.sudq\T					
ness in	sr	Membranor Croup.	—				
of Sickı	*1	niphtheria (9	1 0	+	30	10
Cases		Scarlatina		0	2 6	15	18
New		Smallpox.					
		AGE.	Under 5 5 upwards	$\frac{\text{Under } 5}{5 \text{ upwards}}$	Under 5 5 upwards	Under 5 5 upwards	Under 5 5 upwards
·sq	ri5	Registered I	119	09	102	219	500
·10	381	,noitsInqo4	4742	2804	3335	7453	18034
		SUB-REGISTRATION DISTRICT.	SOUTHMINSTER	BRADWELL	MALDON	TOLLESBURY	Totals

N.B.—Notification of Infectious Disease has been compulsory since January 1st, 1890. There is no Hospital for Infectious Diseases in the District.

TABLE VI. Maldon Rural Sanitary District.

	ied.	Total.	12 10 10 10 10 10 10 10 10 10 10 10 10 10	163- 164
93.	Notified.	Small Pox,		
t, 189	Diseases	Erysipelas.	201011002240	14
. 31st,		Pevers.	814110113013	17
Dec.	Infectious	Oroup and Diphtheria.	<pre></pre>	57 128
ending	Infe	Scarlatina.	1012880782101	75
		Total.	8004844841811	32 46
Year	otic	Measles.	0 4 0 1	25.00
for	Zymotic es.	Whooping Cough,		19
Sc.	s from Z Diseases.	Erysipelas.		0 -
	hs f Di	Diarrhea.		6.9
280	Deaths I	Fevers.	1 1 1 1 1 1	1C -
Diseases,		M. Croup and Diphtheria.		 - -
ໜ	from lases.	Over 65 Years.	10 10 10 10 10 10 12	109 117
Infection		Under 1 Year.	ろして ら 3 3 7 7 3 3 4	45
	Deaths all car	Total Deaths.	000000000000000000000000000000000000000	266 306
Data, Deaths,		Rainfall,	1.435 2.645 325 .103 1.243 .583 3.075 2.20 1.14 3.00 2.475 1.982	20.206 24.32
Data	Data.	No. of Rainy Days.	18 20 20 10 10 11 16	150
	Meteorological Data.	Relative Humidity.	94.8 94.2 89.2 70.7 73.5 77.3 88.8 94.	81.3
Meteorological	Meteor	Mean daily range	10.2 12.9 22.65 26.4 24.21 20.2 20.2 18.93 13.28 11.99	18.5
44		Mean Temper- ature.	34.3 40.35 44.2 49.2 56.19 62.6 64.66 56.05 50.88 40.62 38.67	49.8
Table	1893	Month.	January February March April May June July August September October November	Means $&(1893)$ Totals for $&(1892)$

Total, 165.

One Cholera in October.

† One Small Pox in September.

TABLE VII. DEATH-RATES IN THE PARISHES, 1893.

Population.		648	1608	1238	1621	951	789	1309	905	643	1336	1303	12	2336	885	1338	
DEATH RATE.—Mean for 11 years, 1881—91.	All Causes.	\circ	12.7	4	10	10.	10	16.7	16.1	16.6	15.2	16.8	16.1	15.0	14.6	16.6	
1893.	All Causes.					∞	1.0	26.0	Ji	ાં	6.	6.				12.7	
		· •	:	:	:	•	•	•	:	:	:	:	:	:	:	:	
PARISHES.		1 Asheldham, Dengie, and St. Lawrence	Z Tollesbury	3 Langford and the Tothams	4 Heybridge		6 Woodham Walter and Mortimer	Cold Norton, Stow, Purleigh, and Hazeleigh	8 Bradwell-on-Sea		10 Goldhanger and Tolleshunt D'Arcy	11 Southminster	12 Ulting, Wickham Bishops, Great and Little Braxted	13 Burnham	-	15 Steeple, Latchingdon, Mundon, and North Fambridge	

MALDON RURAL SANITARY DISTRICT. TABLE VIII.

TABLE shewing the Total Number of BIRTHS and DEATHS, also the Number of Deaths at various ages and from various diseases, each year, from 1890 to 1893.

Phthisis.	30	23	21	18	23.0
Total Zymotic Seases.	36	15	46	32	32.25
.sædrisiQ		,	9	o	4.0
MhoopingCough	19	ಣ	19		10.5
Measles.	-	ಣ	12	∞	6.0
Erysipelas.	07		-	ତୀ	1.2
Puerperal Fever.				C 7	.75
Continued Fever		,	Н		70.
Typhoid Fever.	<u></u>			ಣ	2.7
M. Croup.	හ	-		ଦୀ	1.7
Diphtheria.	4	4	9	70	4.7
Scarlet Fever.					
Over 65	119	132	118	109	119
25 to 65	89	65	69	09	65
15 to 25	12	17	12	14	14
5 15	19	10	14	15	14
1 5	29	19	38	23	27
Under I yr.	09	51	56	45	53
Total Deaths.	307	294	307	266	293
BIRTHS	540	536	463	200	510
YEAR.	1890	1891	1892	1893	Mean for 4 years.

CENSUS RETURNS.—Maldon Rural Sanitary District.

)	The second No. 10	1)		
	HOU Uninhabited	SES. Inhabited.	FAMILIES.	Population.	Males.	Females
Burnham	15	500	527	2360	1224	1136
α · 1	$\frac{13}{2}$	30	32	127	58	69
A 7 / 1	18	71	89	313	139	174
3.41 3	5	41	46	$\begin{bmatrix} 313 \\ 203 \end{bmatrix}$	96	107
	$\frac{9}{19}$	102			232	$\begin{vmatrix} 107 \\ 228 \end{vmatrix}$
Steeple			102	460		l .
Southminster	7	321	325	1303	694	609
Southminster Dst.	66	1065	1121	4766	2443	2323
Asheldham	2	39	39	180	82	98
Dengie	4	51	51	279	155	124
Tillingham	4:	234	235	954	509	445
Bradwell	21	205	203	914	490	424
St. Lawrence	4	41	42	189	96	93
$\left\{ \begin{array}{c} \text{TOTALS} \\ \text{Bradwell District} \end{array} \right\}$	35	570	570	2516	1332	1184
Mundon	10	54	66	263	150	113
T / 1 * 1	31	102	103	464	240	224
North Fambridge	9	$\frac{102}{36}$	45	151	84	$\frac{221}{67}$
CI. TIME.	5	$\frac{30}{37}$	54	$\begin{vmatrix} 151 \\ 176 \end{vmatrix}$	91	85
Stow Maries Cold Norton	$\frac{3}{2}$	43	54 52	183	90	93
			191	858	454	404
Purleigh	$\frac{32}{2}$	188		111	57	54
Hazeleigh	$\frac{2}{2}$	$\frac{27}{c}$	$\frac{27}{c7}$		143	155
W'dham Mortimer	1	$\frac{65}{07}$	67	298		
Woodham Walter	12	97	119	491	261	230
Ulting	$\frac{2}{2}$	34	37	165	80	85
Langford	2	44	44	194	97	97
$egin{array}{c} ext{TOTALS} \ ext{Maldon District} \end{array} ight\}$	109	727	805	3354	1747	1607
Heybridge	21	366	367	1623	877	746
Wickham Bishops	10	123	123	473	227	246
Little Braxted	1	26	26	125	68	57
Great Braxted	5	85	85	361	17.9	182
Little Totham	5	69	71	323	159	164
Great Totham	13	$17\overline{2}$	172	722	366	356
Goldhanger	10	103	105	466	236	230
Tolleshunt Major.	$\frac{10}{2}$	90	92	405	$\overline{213}$	192
Tolleshunt D'Arcy	$1\overline{5}$	196	198	870	446	424
Tolleshunt Knights		106	106	480	$\frac{238}{238}$	242
Tollesbury	21	368	364	1617	828	789
TOTALS Tollesbury Dist.	109	1704	1709	7465	3837	3628

CENSUS RETURNS—continued.

No. of Occupants	ROOMS IN TENEMENTS.				
of Tenements.	1	2	3	4	Over 4
1	9	52	51	101	
2	2	47	108	322	
3		13	71	258	
4		4	55	267	
5		4	40	218	
6		1	22	148	
7	-	1	15	138	
8			8	76	
9			5	40	
10		-		20	
11			Parameter	4	
12 or more				_	
TOTAL	11	122	375	1592	2055

Ages of Males and Females in Maldon Rural Sanitary District.

	MALES.	Females.	Total.
Under 1 year	231	237	468
Between 1 and 2 years	220	224	444
$2 \qquad 3$	254	251	505
$3 \qquad 4$	240	214	454
4 5	227	234	461
Total under 5 years	1172	1160	2332
Between 5 10	1214	1179	2393
10 15	1207	1053	2260
15 20	955	643	1598
20 25	660	564	1224
25 30	604	583	1187
30 35	450	468	918
35 40	468	464	932
40 45	419	458	877
45 50	446	453	899
50 55	398	389	787
55 60	342	359	701
60 65	294	261	555
65 70	274	266	540
70 75	217	201	418
75 80	159	149	308
80 85	64	61	125
85 90	14	23	$\frac{37}{10}$
90 95	$\frac{2}{2}$	8	10
95 100	0	0	0
Total	9359	8742	18101

Summary of Work done through the Sanitary Inspector in the Rural Sanitary District of Maldon Union during the year ending 31st December, 1893.

		Total No. for year.	Results of Inspection, &c.
$\frac{1}{2}$	Complaints received Cottages inspected	52 900	
3	Lodging-houses inspected		
4	Slaughter-houses inspected	14	
5	Bake-houses inspected	18	
6	Dairies & milk shops inspected	9	
7	Cowsheds inspected	25	
8	Workshops inspected		Many by M.O.H.
9	Filthy houses cleansed, scc. 46		
= 0	Public Health Act, 1875	2	
10	Houses disinfected	50	
11	Overcrowding abated	8	
12	Houses placed in habitable	F	
1.9	repair	$\begin{bmatrix} 5 \\ 4 \end{bmatrix}$	
13 14	Houses closed Houses erected or re-built, for	4	
14	which "Certificates," were		
	applied for	40	
15	"Certificates" granted	38	
16	,, deferred	$\frac{3}{2}$	
$\tilde{17}$	Wells sunk or improved supplies)	
- •	of water afforded	18	
18	Wells cleansed or repaired	10	
19	Wells closed		
20	Defective pumps repaired or new		
	pumps erected to existing wells	29	
21	Leaky taps repaired where		
	drawing from public mains	30	
22	Houses connected with sewers	33	
23	with water mains	6	Carried being and deally along
24	Earth, pail, or improved privies		Cesspools being gradually abolished
	constructed or existing privies		and earth or pail closets substituted.
	altered	115	situtea.
25	Privies & W.C.'s repaired; W.		
40	C.'s supplied with water	26	
26	Cisterns cleansed, repaired, or	20	
20	covered	6	
27	Animals improperly kept		
-•	removed	7	
28	Samples of water taken for		
	analysis	27	Chiefly by M.O.H.
29	Samples of food or drink taken		
	for analysis		
30	Compensation paid for destruc-		
	tion of infected bedding	£1 19 3	Case of small-pox in travelling
31	Seizures of unsound meat, &c.	070	caravan
32	Nuisances reported or detected	273	
33	Nuisances abated	230	
34	Notices served Summonses taken out	98	
35	Summonses taken out	4	
		1	



